To: R2 EPA Region 2 (EPA Staff)[R2_EPA_Region_2_EPA_Staff@epa.gov]

From: Shore, Berry

Sent: Mon 6/27/2016 12:00:25 PM

Subject: POFA/POFS Clips

Gillibrand calls for EPA action on toxic chemical PFOA

Associated Press

Jun 23, 2016

Times Union

ALBANY — A day after President Barack Obama signed a major overhaul of toxic chemical rules into law, Sen. Kirsten Gillibrand called on federal regulators to use new powers under the law to determine if the industrial chemical PFOA should be restricted or banned.

"Given the concerns about the effects of PFOA on public health, I urge you to prioritize this chemical for assessment under the Toxic Substances Control Act as soon as possible," the New York Democrat wrote in a letter to Environmental Protection Agency Administrator Gina McCarthy on Thursday.

Gillibrand noted that health concerns about the chemical have been heightened by the recent discovery of drinking water contamination in Hoosick Falls and Petersburgh in upstate New York, as well as rural towns in Vermont and New Hampshire.

PFOA, or perfluorooctanoic acid, long used to make Teflon and numerous other nonstick, stain-resistant and waterproof products, has been linked to cancer, thyroid issues and other illness. Hoosick Falls residents are worried after blood tests showed some of them had PFOA levels as much as 50 or 100 times above the national average, Gillibrand said.

Manufacturers agreed to voluntarily phase out PFOA by the end of 2015 under an EPA settlement, but the chemical persists in the environment and has been found in drinking water in numerous communities where it was used.

"The Environmental Protection Agency has expanded powers to more quickly regulate and ban PFOA than under current law," said Melanie Benesh, an attorney for the nonprofit Environmental Working Group. "We don't know what EPA will do because PFOA is already being phased out. It may not be a high priority for regulation."

Gillibrand said PFOA contamination "threatens to become a major public health crisis across the Northeast and anywhere this chemical has been used in manufacturing."

Vermont and Saint-Gobain Corp. remain in talks about PFOA payments

By Edward Damon

Updated: 06/24/2016 05:43:40 AM EDT

Berkshire Eagle

BENNINGTON — The state and the company deemed potentially responsible for PFOA contamination are still in talks over how to pay connect impacted homes to public water, officials say.

Officials with Gov. Peter Shumlin's office and the Department of Environmental Conservation met with Saint-Gobain Corporation representatives on Monday, according to Chuck Schwer, director of DEC's waste management and prevention division. They met to talk about the two engineering studies that estimate it would cost about \$17 million to extend municipal water lines in the town and village. A community meeting is planned for June 29 at 6 p.m. at Bennington College's Tishman Auditorium. The meeting will be held so officials can provide an update on the PFOA issue and share and seek feedback on the engineering studies, according to Schwer.

DEC officials are also slated to attend Monday's Select Board meeting to provide an update and speak to the board and public.

State officials tested for PFOA, or perfluorooctanoic acid, near Bennington over

concerns about nearby Hoosick Falls, N.Y. Saint-Gobain, along with Honeywell International, are two parties New York officials deemed responsible for contamination in the village, as predecessors of both companies operated there for decades.

Saint-Gobain and predecessor ChemFab operated in the village for 30 years. The Water Street factory is the suspected contamination source.

The company paid for the two engineering reports for the town and village municipal water systems. Both municipal systems are independent of each other; neither contain PFOA, a contaminant that has been linked to cancer and other diseases.

The project would extend water mains to an additional 230 properties in the town of Bennington, according to a report by MSK Engineering and Design.

In the village of North Bennington, the project would bring water to 34 properties with contaminated wells, with the potential for more properties hooking into it later, according to a report by Otter Creek Engineering.

PFOA was also detected in private wells and a municipal water system in Pownal, around the former Warren Wire No. 1 plant on Route 346. American Premier Underwriters (APU) is the party potentially responsible there, as a successor to Warren Wire/General Cable.

In New York, Saint-Gobain and Honeywell have signed consent orders requiring they reimburse the state and village for any costs and to fund cleanups. Vermont DEC has not entered into a consent order with any company. But Saint-Gobain and APU have agreed to funding bottled water and filtration systems.

In Pownal, a filter system for the Pownal Fire District No. 2, a municipal water system serving 450 customers, has been approved. Equipment is expected to be delivered sometime this week, Schwer said.

Schwer said the agency will soon be posting updated maps of where it has tested in North Bennington, Bennington and Pownal.

Contact Edward Damon at 413-770-6979

PFOAS: June 29 meeting on water lines, testing and more

By edamon@berkshireeagle.com @BE_EDamon on Twitter

Posted: 06/24/2016 10:11:43 PM EDT

Bennington Banner

BENNINGTON >> An upcoming meeting on PFOA will focus on water line extensions, well testing and blood clinics.

The meeting will be held on June 29 at 5:30 p.m. at Bennington College's Center for the Advancement of Public Action (CAPA) Symposium.

Officials say they're looking for feedback on engineering reports to extend public water in the town and village.

Bringing public water to Bennington and North Bennington residences and businesses with PFOA contaminated water supplies will cost an estimated \$17 million, or \$13.7 million and \$3.2 million, respectively, according to two engineering reports under state review.

A June 3 decision by the Agency of Natural Resources determined the project does not require an Act 250 land use permit.

In the town, the project would involve about 50,000 feet, or 9.5 miles, of new water lines. In the village, about 14,000 feet, or 2.6 miles, according to information submitted to ANR. A request by an attorney for Otter Creek Engineering for a jurisdictional hearing states the project does not involve any expansion of the water systems.

It's still unclear who would pay for the upgrades — neither the state, the company believed to be responsible for the contamination, nor the municipalities have committed to them.

In both Vermont and New York, environmental and health agencies are still addressing the PFOA issue. In Vermont, PFOA has been found in wells around the former ChemFab/Saint-Gobain site, and in some private wells and a public water system in Pownal, near the Warren Wire No. 1 Plant on Route 346. In New York, wells and public water systems in Hoosick and Petersburg wells have been affected.

Companies deemed either responsible or potentially responsible are providing bottled water. Both states are looking at finding other water supply sources for municipalities.

In Hoosick, town and village of Hoosick Falls officials voted to split a \$46,000 feasibility study to look at extending the public water line up to three miles south on state Route 22 to the intersection of NY Route 7. It would connect homes, businesses, the central school campus and the Hoosac School.

PFOA, or perfluorooctanoic acid, was found in the Hoosick Falls public water supply in the summer of 2014. That December, Saint-Gobain Performance Plastics The EPA issued a no-drink order in November.

The man-made chemical was once used as a key processing agent during the manufacturing of Teflon, the non-stick, water and grease repelling coating used for everything from cookware to wire insulation and fabrics.

Saint-Gobain agreed to reimburse the state for a granulated activated carbon filtration

(GAC) system at the village's treatment plant. Since a temporary system went online this winter, repeated testing found it has been removing PFOA. A sample of untreated water shows a PFOA level of 448 parts per trillion (ppt), according to a June 2 letter from the DOH. PFOA wasn't detected in treated water.

In Bennington and North Bennington, PFOA in levels above 20 ppt were found in 227 of 432 private wells. In Pownal, elevated levels were found in five of 100 private wells.

In the Hoosick area, New York DEC has tested 1,006 private wells, according to the most recent information. A total of 765 point of entry (POET) filtration systems have been installed at homes and businesses; 652 have been tested for effectivness and are online.

In Petersburg, Rensselaer County, working with DOH and DEC, have sampled 247 private homes' wells. Of those, 46 samples were below 20 ppt; 28 were between 21 ppt and 70 ppt; 45 between 71 ppt and 1,000 ppt; 15 over 1,001 ppt. PFOA was not detected in 113 samples.

Contact Edward Damon at 413-770-6979

New York searches statewide for industrial chemical in water

By AP

Created: 06/23/2016 5:38 AM

WNYT Chanel 13

ALBANY, N.Y. (AP) - New York environmental regulators are looking statewide for potential sites of groundwater contamination from a cancer-causing chemical previously used to make Teflon and other products.

The Department of Environmental Conservation sent formal surveys last week to more than 150 facilities that may have used PFOA. Surveys were also sent to scores of fire

departments, airports and other facilities that may have used the related chemical PFOS in firefighting foam.

DEC's chief of staff tells The Associated Press the agency will analyze the survey data to determine the need for future site investigations. The surveys are due back by July 15.

The action follows discovery of PFOA in wells in Hoosick Falls and several other communities in eastern New York, Vermont and New Hampshire.

Vermont and New Hampshire launched statewide surveys this spring.

Lawsuit Filed Against 3M for Dumping Toxic Chemicals Into the Tennessee River

June 26, 2016 11:38

EcoWatch

With a major American river poisoned by toxic chemicals dumped into it by one of the nation's largest corporations, Tennessee Riverkeeper has filed a federal lawsuit against 3M Company and other defendants under the U.S. Resource Conservation and Recovery Act (RCRA).

The suit alleges the defendants' contamination of the Tennessee River in and near Decatur, Alabama with perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS) and related chemicals has created an "imminent and substantial endangerment to health and the environment."

The toxins—components or byproducts of 3M's manufacture of its profitable lines of "non-stick" products like Scotchgard and Stainmaster—have polluted the Tennessee

River's Wheeler Reservoir, a popular recreation destination and home to various important wildlife species and ecosystems. The Tennessee Riverkeeper's RCRA suit seeks to compel the immediate and thorough clean-up of the contaminants.

As even minimal exposure to PFOS and PFOA is linked to a variety of lethal health hazards, there exist virtually no safe levels of the chemicals in the environment. Research strongly indicates PFOA and PFOS are potent carcinogens and they have also been tied to birth defects and adverse effects on childhood development, significantly decreased immune system function, liver tissue damage and a host of other serious health problems. Consequently, in a May 2016, the U.S. Environmental Protection Agency (EPA) announced Drinking Water Health Advisories for PFOA and PFOS of only 0.07 parts per billion.

However, PFOA and PFOS levels in the Tennessee River near the 3M site are, respectively, more than 70,000 and 50,000 times higher than the EPA's safety advisory.

"We don't mind 3M making profitable products—but, we cannot tolerate the defendants putting profit ahead of the health of people, the environment and the river," David Whiteside, Tennessee Riverkeeper's founder and executive director, said.

"Tennessee Riverkeeper members are both this river's users and guardians. After nearly five decades of 3M's pollution of the Tennessee River, where no one has held the defendants accountable, we felt we needed to act to protect this precious resource and all the wildlife and restore justice to the hundreds of thousands of people who rely upon her waters everyday."

Notably, the Tennessee Riverkeeper's lawsuit is wholly separate from a suit recently filed by local residents. Last fall, residents and a local water authority initiated a class action lawsuit against 3M and its subsidiaries, claiming the residents have ingested dangerous levels of PFOA and PFOS and seeking monetary damages as a result.

Tennessee Riverkeeper's RCRA suit does not seek money, but instead demands the broadbased clean-up of the aforesaid contaminants.

"The rights to clean air and water and to a safe secure environment are fundamental civil rights and as with all pollution, the injuries from 3M's pollution land hardest on the backs of Alabama's poor and minority communities," Robert F. Kennedy, Jr., president of Waterkeeper Alliance, said.

3M has produced PFOS at its Decatur plant since the early 1960s and PFOA at the site since 1999. On-site disposal practices have resulted in groundwater contamination and the contamination of the Wheeler Reservoir of the Tennessee River. 3M has also transported waste off-site to nearby landfills. The largest volume has been delivered to the City of Decatur-Morgan County Sanitary Landfill, owned by co-defendant City of Decatur.

Waste was also transported to landfills owned and/or operated by other defendants, like the A.J. Morris Landfill (Morris Farms Landfill), in Hillsboro, Alabama, owned by BFI Waste Systems of Alabama, LLC. Finally, waste was also received by the now closed Bert Jeffries Landfill (also called the Browns Ferry Road Site), which is now owned by 3M.

These landfills all have high levels of groundwater contamination from PFOA, PFOS and related chemicals. The chemicals are also found at high levels in the liquid waste, called leachate, collected from Morris Farms and the Decatur-Morgan County landfills. The collected leachate from both landfills is sent to the Dry Creek Waste Water Treatment Plant (WWTP), owned by Decatur Utilities. The plant has inadequate treatment capabilities for these chemicals and, therefore, discharges harmful amounts into the Tennessee River.

Tennessee Riverkeeper's RCRA lawsuit seeks to compel the immediate, thorough and verifiable clean-up of all of these areas. Riverkeeper demands that 3M dramatically increase its efforts to remediate up its on-site groundwater contamination, that groundwater at the landfill sites be mitigated, that leachate from the two landfills that collect leachate be treated before discharge to the Dry Creek WWTP and that the WWTP treat its discharge to remove these chemicals before discharge to the Tennessee River. Riverkeeper further asks that 3M be held responsible for the required remediation at the off-site facilities.

"3M profited for decades off of the products it produced that polluted the Tennessee River and now it needs to live up to its moral responsibility—and its legal obligation—to do and spend what it is necessary to expeditiously eliminate the threats to human health and the environment that these contaminants cause," Matsikoudis & Fanciullo, a New Jersey law firm that is representing the Tennessee Riverkeeper, said. Mark Martin, Tennessee Riverkeeper's chief prosecuting attorney, also represents the nonprofit.

W. Morgan-E. Lawrence residents split on safety of water supply

By Ashley Remkus Staff Writer

Decatur Daily.com

When his mother asked whether water from the sink is safe to drink, 7-year-old Connor Souders shook his head "no."

"It's also not OK to drink out of the water fountain because that water comes from the same place," the boy added.

His mother, Ashley Souders, of Trinity, said her family hasn't taken a drink or cooked with the water generated by the West Morgan-East Lawrence Water and Sewer Authority since an advisory was issued earlier this month.

"And that's not going to change now," Ashley Souders said, even after the authority was taken off the Environmental Protection Agency's advisory list this week.

Gov. Robert Bentley's office announced Thursday that water from West Morgan-East Lawrence, mixed with water purchased from Decatur Utilities, did not contain detectable levels of perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA).

Following that announcement, the utility's general manager, Don Sims, said the water is safe to drink

"The governor, EPA and state Health Department have determined the water can be used just like it always has been and removed us from the health advisory, so it's safe to drink," Sims said Friday.

Sims previously told the authority's nearly 11,000 customers not to cook with or drink the water because levels of PFOS and PFOA exceeded the levels of a health advisory issued by the EPA in May. The water authority began purchasing water from DU on June 10 in an attempt to reduce the level of the chemicals.

The EPA announced a more stringent standard for levels of PFOA and PFOS on May 19, and a health advisory was issued for any water system reaching a combined level of 70 parts per trillion of the two chemicals in drinking water. The West Morgan-East Lawrence system had exceeded that when Dec. 29 samples of its water contained a combined 110 parts per trillion of the chemicals.

While some residents, like the Souders family, are choosing not to drink the tap water, others say their concerns haven't been high enough to prompt buying bottled water.

"It's the same water we've always been drinking," said Riley Darnell, of Hillsboro. "I never stopped drinking it because it's not like what was in it changed — they just lowered the amount of the chemicals that could be there."

Darnell said concerns about the water's safety did rise in his household, but they weren't substantial enough to go through the hassle of purchasing bottled water.

Hillsboro resident Travis Amos said when the advisory first was announced, his family "freaked out" and rushed to buy bottled water.

"But it wasn't long before we were all back to using the water from the sink," Amos said. "It's not really like it was any different than what I'd drank all my life, so I don't think it would matter now."

Ashley Souders said her family has continued bathing in the water and using it for washing clothes, but concerns for her two children's safety keep her from letting them ingest it otherwise.

"We took the advisory seriously, and started checking into and researching those chemicals," she said. "I've been drinking this water my whole life, but my 4- and 7-year-old are still young enough that it could affect them."

The EPA has said the chemicals PFOS and PFOA might be associated with various types of cancer, with developmental problems for fetuses and breast-fed infants, and other health problems.

Sims said the water will continue to be tested every other week until a permanent solution is in place.

The authority is expecting to spend about \$4 million on carbon filters to remove the chemicals from the water.

"Our goal is to have that completed by September," Sims said. "Until we get those in, we'll continue sampling. Historically in the summer our levels have been below the EPA advisory level. But when they start releasing the water through the dam in the winter, it drags the chemicals down into our system."

Sims said the river depth is lowered around September or October each year, so "we're under pressure to get it up and working."

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Scam Requests Donation

June 25, 2016 Times Union

HOOSICK FALLS — Hoosick Falls police are investigating a telephone and social media scam that involves a request for donations to assist residents with their water woes.

The Rensselaer County village is currently dealing with a water contamination crisis after samples taken from public and private water wells detected perfluorooctanoic acid, or PFOA, at levels above federal guidelines.

Police, in consultation with the village and town board, confirm there is no official organization requesting such donations and said anyone who receives a request should contact village police at 686-7999, or members of the village or town board.

"The village and town are working closely with the residents of Hoosick Falls in meeting all concerns but unfortunately there are individuals that are trying to take advantage of the residents in troubling times," Chief Robert Ashe said in a news release.

— Bethany Bump

Unwell water

By Kyle Bagenstose and Jenny Wagner, staff writers

Posted: Sunday, June 26, 2016 6:00 am

Bucks County Courier Times (PA)

Over the past two years, 16 public wells and about 140 private wells have been shut down by contamination from perfluorooctanoic acid and perfluorooctane sulfonate. The former Naval Air Warfare Center in Warminster and former Naval Air Station Joint Reserve Base in Horsham, along with the active Horsham Air Guard Station, are thought to be the source of the taint.

This news organization has been investigating and writing extensively on the topic, telling the stories of local people who believe they've been sickened by the chemicals, speaking with health experts on the potential toxicity of the chemicals, and examining the actions taken by local, state and federal agencies as they address the contamination

Paul Lutz spent 12 years working on the former Naval Air Station Joint Reserve Base Willow Grove and says he has been following the headlines about water contaminated with perfluorinated compounds in the area over the past several months.

But there's one thing missing, the 44-year-old Lehigh County resident says.

"Nobody's talking about the men and women who served on the base," Lutz said.

For Lutz and others like him, that's a problem. He's one of the most active members of a Facebook group of more than 1,600 people, mainly veterans and their family members, who believe their time at "The Grove" made them sick because of perceived exposures to various chemicals. Naval operations ceased and the base closed in 2011; the Horsham Air Guard Station still operates on a portion of the property.

As to exactly which chemicals they were exposed, they're not sure. Some point to toxic volatile organic compounds, which were first found in the base's drinking water in the 1980s. Others wonder if they were somehow exposed to chemicals from known, large fuel spills that occurred on the base over time or more commonly known substances such as arsenic and lead. Still others wonder if their illnesses could have been caused by perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), which although only recently found in drinking water, could have been present as far back as the 1970s.

Or, some say, perhaps it's a little bit of each.

Veteran Paul Lutz talks about health issues

"Let's say I was exposed to PFOS. So yeah, it might be bad for you," Lutz said. "But

what happens if I'm taking in that and also benzene (a chemical found in jet fuel)? What about those reactions?"

Whether personnel could have been sickened from chemicals in the soil, groundwater and drinking water at the base has been analyzed several times by public health agencies over the base's history. The most recent analysis, conducted by the U.S. Agency for Toxic Substances and Disease Registry (ATSDR) in 2002, concluded that "no apparent public health hazards" existed on the base then, or previously.

However, an extensive investigation of past military records and consultation with independent toxicologists by this news organization has found issues with the health assessments that have been conducted so far. Among our findings:

- •Since the 2002 report, no public health agencies have assessed the health risks posed to past or present personnel by known toxic contaminations in the base's drinking water. That's despite updated science on the risks posed by chemicals previously found in the base's drinking water, and the 2014 discovery of contamination of perfluorinated compounds PFOS and PFOA.
- •The last public health assessment, conducted in 2002, did not take into account potential exposures to chemical contamination through showering, and did not calculate the combined health risks of the multiple chemicals that had been found in the water. Toxicologists with whom this news organization spoke say that using those methods could significantly increase the amount of calculated exposure.
- •Military officials could not provide drinking water testing results before 1985, making it impossible to confirm what personnel may have been exposed before that time. This is despite military records detailing significant leaks of jet fuel and other contaminants on the base before 1985

When the Agency for Toxic Substances and Disease Registry was asked for comment regarding these findings, a spokesperson responded in an email that the agency is considering an update to its 2002 assessment.

"Because the science of health effects from environmental exposures, including PCE, TCE, lead and arsenic, has and continues to evolve and (the agency) has updated its approach for evaluating exposures to these chemicals, (the agency) is considering updating the ... public health assessment," the email stated.

This news organization also sent about half a dozen questions to the Navy on June 17 for this report, including whether the Navy is confident that past health assessments are still valid. Communications personnel responded that because of staffing limitations, answers would not be available until around July 6.

Looking for details

Lutz believes the military has not been forthcoming with information about potential health risks to personnel.

Leading up to his retirement from the Navy in 2012, Lutz says he began to experience chronic back pain. Once retired, he went to various doctors until one finally ran imaging tests and found he has multiple myeloma, a cancer of plasma cells in bone marrow that can cause bone weakness and fractures.

"I know I'm going to die from myeloma. It's not like something I'm going to live with and be 95 years old," Lutz said.

He began radiation treatment last year and chemotherapy treatment in May, but the cancer is considered incurable

Lutz, a husband and father of three, says his illness has been recognized as being caused by his time in the service; it has been deemed "service connected" by the U.S. Department of Veterans Affairs, meaning he's eligible for monthly disability compensation.

Veteran believes his cancer diagnosis is from his time at Naval Air Station Joint Reserve Base Willow Grove

Lutz says the VA never detailed its reasoning for the designation. But, he says, as a flight engineer he worked extensively with petroleum products while refueling airplanes. According to the American Cancer Society, some studies have linked benzene, a chemical found in jet fuel, to multiple myeloma, and a review of VA records by this news organization found that veterans elsewhere have had the illness deemed service-connected because of exposure to fuel.

The VA does not have a policy recognizing a connection between jet fuel and its components and cancers, but it "is aware that this is a common concern among veterans," a VA spokesperson answered in an email. "VA continuously monitors scientific and medical literature and is interested in potentially designing a study to gain knowledge on this issue."

The VA can only address similar health diagnoses from a collective group of personnel who were stationed at a common base or deployment in cases where "special exposure scenarios" have been identified, the spokesman explained. The VA has registry programs for veterans in such scenarios, for example, as those who may have been exposed to Agent Orange, or those who were exposed to a variety of potentially harmful substances during the Gulf War.

"VA does not currently have a method to track personnel on service at a particular base otherwise," the spokesperson added. However, the VA and the U.S. Department of Defense are working to develop an "Individual Longitudinal Exposure Record, which could potentially fill this gap in the future."

Some members of the NAS JRB Willow Grove Cancer Diagnosis Facebook group, believing they may have been made ill by chemicals on the base, say they have been denied service connection or are skeptical of trying to prove a connection. That's according to Valerie Secrease, a 64-year-old Franconia resident who worked at the base in Willow Grove for about 26 years as a civilian and reservist.

Secrease is one of the administrators of the Facebook group, which was created in early 2013 by the widow of a veteran who died from cancer that ultimately was deemed service connected. Secrease maintains a private list of former personnel who've been diagnosed with or succumbed to cancer and other illnesses, and says it now numbers more than 100, including individuals who have been denied service-connected benefits.

"It seems like every two weeks somebody is dying," Secrease said, adding that the most commonly referenced cancers are of the throat, stomach, colon and bladder.

Veterans' illnesses can reveal themselves years later

Secrease also suffers from health issues; she's been diagnosed with malignant melanoma and thyroid disease, and also wonders if her high cholesterol and high blood pressure may have been caused by her time at the base. She has not yet applied to have any of the illnesses service connected, and says she isn't encouraged by the attempts others have made.

"Many of (the people) on the cancer page have been denied compensation because they (the VA) say there is no proof of service-connected disability," Secrease said.

Secrease and Lutz both say that environmental contamination of various chemicals used at the base was common knowledge among personnel, but it's only in retrospect that they view it with any alarm. Along with fellow personnel, Secrease and Lutz recall fuel leaks, water fountains closed off with plastic for unknown reasons, high lead level notices, and soil being removed from various sites for disposal. There were never any widespread concerns or warnings, they said.

"When you're not conscious of it or not sick, you don't really think about that stuff," Lutz said. "You know in the back of your mind ... but you don't think it's going to be right on top of you. You're worried about flying airplanes, not about what's in the water."

A history of contamination

That hazardous chemicals have been found in the soil, groundwater, and even drinking water at the 1,200-acre former joint reserve base is well-documented.

In 1995, the Willow Grove base and adjacent Air Force property were added by the Environmental Protection Agency to its list of national Superfund toxic waste sites. Numerous areas on the bases were designated as "potential sources of contamination" by the EPA, including sites related to aircraft maintenance, fuel operation, personnel training, stormwater retention and washing areas.

The EPA lists 28 different "contaminants of concern" at the former base, including a number of known carcinogens. Nine of the contaminants have been found in groundwater, the rest in soil, according to the EPA.

Known contamination goes back even further than 1995. Military records reviewed by this news organization show that in 1979, the bases' drinking water systems were tested for trichloroethylene (TCE), a degreaser used to clean machinery and a known carcinogen. Tests confirmed its presence, along with a similar chemical called tetrachloroethylene (PCE), at levels well above the EPA's current drinking water standards.

Historically, the Horsham bases had used three wells for drinking water: two on the joint reserve base, and a third on what is now the air guard station.

Naval Air Station Joint Reserve Base Willow Grove

This Naval Air Station Joint Reserve Base Willow Grove map shows the locations of Navy and Air Force wells, the Navy fuel farm and a petroleum, oil and lubricant storage site.

Documents reviewed by this news organization indicate that the military changed which wells it used for drinking water several times between 1979 and 2014, when all well water was deemed unsafe to drink because of perfluorinated compound contamination.

In early June, this news organization reached out to the Navy's Base Realignment and Closure (BRAC) program and personnel at the air guard station to ascertain which wells were used for drinking water at which times, and when filtration systems were installed to remove TCE and PCE from the water.

The Navy's BRAC office had not sent an answer as of Friday. Jacqueline Siciliano, environmental manager for the air guard station, said in an email that all wells on air guard property had been abandoned decades ago, and that the base has regularly alternated between the two Navy wells to provide drinking water to its personnel.

Available military documents do provide results of TCE and PCE sampling from 1979 to 1984, and show significant contamination in the two Navy wells.

Over that time span, the first Navy well averaged 25.7 parts per billion for TCE and 39.2 ppb for PCE, while the second well averaged 15.8 ppb for TCE and 17.2 ppb for PCE. The third well, referred to the Air Force well, averaged 8 parts per billion for TCE and 5 ppb for PCE.

Current EPA drinking water limits for both TCE and PCE are set at 5 ppb. Samples as high as 300 ppb for TCE and 91 ppb for PCE were found in the wells at different points between 1979 and 1984, according to a 2002 report by the Agency for Toxic Substances and Disease Registry.

At some point in time, filtration systems known as air strippers were installed to filter the chemicals from water before being distributed to the two bases, according to various military documents. But this news organization was unable to determine exactly when; a 1996 report stated that "exposures were stopped in the early or mid-1980s when water treatment began," but Siciliano wrote in an email that her review of records showed "the stripping towers were installed in the late 1990s (to) early 2000s."

The Navy's BRAC office did not respond to a similar request for information sent in early June.

A review of annual state drinking water records dating to 1993 show the continued presence of TCE and PCE, although almost always in amounts several times lower than the EPA's 5 ppb drinking water standard.

The system did eclipse those standards for PCE during monthly tests in 1997 (20 ppb), 1999 (20 ppb), 2000 (15 ppb), 2002 (7 ppb) and 2012 (6 ppb). Virginia Cain, spokesperson for the state Department of Environmental Protection, says the bases' untreated water has been routinely sampled and she confirmed the air strippers have been successfully cleaning the water.

"The system ... would have exceeded the (limit) for PCE many times," if the air strippers weren't in place, Cain wrote in an email.

The finding of TCE and PCE in drinking water set off investigations into the source and extent of the contaminations and clean-up efforts, bolstered further by the Superfund designations, that continue to this day. The EPA's website states that soil and groundwater on several sites of the joint reserve base have been successfully cleaned, while clean-up continues at others.

The military's ongoing efforts are chronicled in more than 430 documents and reports, dating to 1986, that are housed at the Horsham Township Library.

Many of them document instances of environmental contamination that former personnel recall. Fuel leaks were a common occurrence. According to a 1996 analysis by the Agency for Toxic Substances and Disease Registry, a significant leak occurred in 1979, when an estimated 9,000 gallons of JP-4 jet fuel was found to have leaked from a storage site on what is now the northern end of the adjacent air guard station, near Keith Valley Road.

The report noted that it was just one of "several undocumented jet fuel spills of between 5,000 and 30,000 gallons" expected to have been released on the site before 1979. The report stated that the spills had resulted in a contamination plume in the groundwater that migrated north to off-base areas. In 1992, the JP-4 jet fuel also was discovered floating on the surface of the nearby Park Creek, the report stated.

In 2006, soil north of the storage site was investigated because it fell along the path of a natural gas pipeline right-of-way. According to a 2008 report by private contractor TetraTech, "the (right of way) segment of the site had not been previously subjected to any direct investigation as part of the environmental restoration activities associated with the (storage) site."

Twenty-seven years after the 1979 fuel leak was discovered, the 2006 investigation by TetraTech found chemicals commonly used in jet fuel were still present in both groundwater and soil. In groundwater, the report found common jet fuel contaminants benzene, ethylbenzene, naphthalene and xylene — all toxic — above state regulatory levels. Benzene was found at 560 ppb, or more than 100 times current EPA drinking water standards.

Benzene, ethylbenzene, naphthalene, and three other contaminants also were found in soil, although below levels that would be a cause for concern, the report stated. Minutes from the December 2009 meeting of the joint base's Restoration Advisory Board stated that the soil had been removed, temporarily stored in an on-base hangar, and then shipped for treatment and disposal at "two facilities in the Philadelphia area."

Two former base personnel, speaking on the condition of anonymity, say the hangar containing the soil was left open to the air, and that personnel nearby could smell a strong fuel smell during daily operations.

Similar issues also occurred at a "Fuel Farm" site on the joint reserve base. According to a 2015 Navy report, it was discovered in 1986 that fuel had overflowed from one of two, 210,000-gallon fuel storage tanks on the site. Workers removing the tanks five years later reportedly found that the bottom of a third tank, previously used to hold fuel before being used to hold oil, had holes as large as 1 inch in diameter.

About 3,500 cubic yards of contaminated soil — weighing about 3,500 tons — was excavated from the area and sat nearby for three years, the report said.

Navy records show that the contaminated pile was not tested for jet fuel or other contaminants until April 1994. At that time, tests showed contamination levels below state clean-up standards, which were deemed to not pose a threat to human health. The 1994 report stated that the soil was slated to be relocated to a fill area on the southern end of the base.

When asked if such fuel piles would be considered a potential route of inhalation exposure to on-base personnel, a spokesperson for the Agency for Toxic Substances and Disease Registry said in an email that it would be difficult to assess the risk without sampling data.

"In general," the response stated, "(such piles) would not present a significant exposure risk unless individuals were directly in contact with these soils and the soils were significantly contaminated."

Although benzene and other fuel constituents leaked into soil, surface water and groundwater at these sites, no state or military records reviewed by this news organization ever identified them as having reached drinking water or otherwise posing a risk to health.

However, when attempting to review original testing records, this news organization found that those created before 1985 were not available, and thus could not be verified. Particularly of interest were the results of the 1979 sampling that originally found TCE and PCE in the bases' drinking water.

"Federal facilities were not required to comply with the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) until 1986," Bill Franklin, BRAC public affairs officer, wrote in an email, naming the legislation that initiated the Superfund program. "Any pre-CERCLA records might be found at the National Archives or a Federal Records Center. However, it was not common practice to track such records or ensure they were sent to archive storage facilities."

The human risk

Despite the long history of environmental contamination, an extensive review of available documentation found that no analysis ever performed at the base concluded that the presence of the chemicals would have caused a widespread health hazard to personnel.

The most recent and conclusive report is the 2002 Public Health Assessment performed by the Agency for Toxic Substances and Disease Registry, a division of the U.S. Centers for Disease Control and Prevention responsible for assessing public exposure to toxic substances. It analyzed the possible effects of contaminants known to have been found above EPA drinking standards in the base's water system.

Even personnel on base before TCE and PCE were cleaned from the drinking water shouldn't have been affected, according to the agency. The 2002 report acknowledged that six contaminants had been found at levels above the EPA's drinking water standards but calculated that the amount and length of exposure was not expected to have led to illness.

The report used a "conservative" approach that assumed personnel would have consumed daily the highest amount of each chemical ever found in drinking water on the base. For TCE, that was 300 parts per billion, or 60 times the EPA's standard of 5 ppb. For PCE, it was 91 ppb, or more than 18 times the EPA's current standard.

Arsenic, lead, barium and a man-made chemical called 1,1-dichloroethylene also were analyzed after being found above EPA drinking water standards.

The report assumed military personnel would have been on the base a maximum of six years and drink two liters of water a day, and civilian workers for 30 years, consuming one liter of water a day. It also incorporated lower body weight for children who lived on the base.

After running the numbers based on EPA cancer risk models for each contaminate, the

agency found that, with the exception of arsenic, none would be expected to cause more than one extra case of cancer in a million people, which is the EPA's acceptable risk level

For civilian employees, the agency found that an extra 1.4 cancers per 10,000 people would be expected due to arsenic. However, the report downplayed the findings, suggesting prior studies that established how much arsenic was safe to consume were flawed and didn't match the situation at the joint reserve base.

"EPA classified arsenic as a carcinogen based on epidemiological studies where people consumed water containing 170 to 800 ppb arsenic for a 45-year exposure period. The maximum detected arsenic concentration in station wells was 22 ppb," the report stated. "The study (also) failed to account for a number of complicating factors, including exposure to other non-water sources of arsenic, genetic susceptibility to arsenic, and poor nutritional status of the exposed population."

The analysis also acknowledged that while some individuals may have been exposed to additional amounts of chemicals in soil and different water bodies on the base, that was not factored into its risk calculations.

"In these areas ... contaminant concentrations are below state and federal regulatory limits and below levels expected to result in illness or harm from exposures during recreational activities," the report stated.

Lead was also found in the drinking water, the report stated. In 1985, it was detected at 20 ppb, higher than the EPA's present drinking water standard of 15 ppb. Despite analyzing health risks for children who may have lived on the base for up to six years, the agency concluded that the 20 ppb lead level, along with levels of other contaminants, were not "expected to cause adverse health effects in adults or children."

A spokesperson for the agency did not directly answer a question from this news organization about whether it would still come to that same conclusion today.

The spokesperson wrote in an email that the lead level of 20 ppb and arsenic level of 22 ppb were collected at an on-base supply wellhead, and not an exposure point such as a tap in on-base housing or work places.

"Given the distribution and potential mixing, it is difficult to estimate what the on-base personnel (including personnel and their families who resided on base for periods of time) were exposed to at the tap in the past," the response stated.

In addition, the response noted, the Navy implemented measures to prevent exposures as soon as contaminants were detected in the supply wells.

Fourteen years later

In the 14 years since the Agency for Toxic Substances and Disease Registry released its analysis, toxicology experts say the science has been updated regarding some of the chemicals in question.

Dr. Perry Cohn, a retired environmental health epidemiologist in the Environmental and Occupational Health Surveillance Program at the New Jersey Department of Health, says the science has evolved in particular around arsenic and lead.

"Arsenic was probably downplayed too much back in 2002," Cohn wrote in an email. "More recent evidence of health effects from low doses is stronger, though not yet totally consistent. Arsenic, like lead, may not have a totally safe dose."

The level of PCE analyzed by the 2002 report also could pose a health risk, according to Cohn. Pointing to a 2009 study that appeared in the Environmental Health journal, Cohn says there is evidence that the levels of PCE analyzed in the federal report — 91 ppb — potentially could have affected the offspring of adults living or working on the base.

"Certain types of birth defects have been seen relatively consistently with PCE exposure from drinking water at levels below 100 ppb," Cohn wrote.

In a 2005 report, the EPA offered new approaches to analyzing cancer risks for children. Applying those recommended methods, Cohn said he found that levels of TCE exposure would have led to an estimated cancer risk of about 1 in 10,000 for children who had lived on base from birth until age 6.

Those numbers aren't particularly critical for the joint base; according to military documentation, the number of active duty personnel at the base peaked at about 1,500. Conservatively assuming each had two children and stayed on the base for six years, that would only amount to about two cancers between 1950 and when the contaminants were found in the 1980s.

However, there are other potential issues with the 2002 study, according to Cohn and other experts. For one, it didn't account for personnel absorbing TCE and PCE through their skin or inhaling the vapors while showering.

"Showering is a route of exposure for (TCE and PCE)," Cohn wrote. "There have been decades of debate about how much. It depends on vent fans and opening windows during warm weather."

Regardless, Cohn says that estimates of additional exposure from showering range from 50 percent to 200 percent of exposure through drinking water — meaning the 2002 analysis could have only accounted for a third of the exposure to chemicals for those living on base.

Asked why the 2002 report did not take into account combined exposure routes, an agency spokesperson stated that the agency "reviews environmental exposure information in a stepwise fashion."

"Historical concentrations of TCE and PCE at the station supply wells were found to be

below levels expected to cause health effects," the response stated. "Therefore, ATSDR did not expect to see levels of concern when accounting for additional exposures via the dermal or inhalation pathways."

Dr. Harry Milman, a consulting toxicologist and president of the consulting and expert witness firm ToxNetwork.com, also says that the health risks of TCE and PCE can be analyzed both separately and together, as they are similar chemicals that have similar health effects.

"This is different from combining the cancer risk of TCE and arsenic, for example, two very different chemicals whose exposure, absorption and health effects are significantly different," said Milman, who worked for 18 years as a toxicologist for the EPA.

Analyzing TCE and PCE together would yield a higher risk than analyzing them separately, Milman said.

Taking another look

A review by this news organization of Agency for Toxic Substances and Disease Registry studies conducted elsewhere found that the agency has applied these concepts during health assessments at other military bases. Perhaps the most well-known is an analysis conducted at Camp Lejeune, a Marine base located in Jacksonville, North Carolina, and the site of widespread drinking water contamination in the mid- to late-20th century.

An original agency analysis of Camp Lejeune, conducted in the mid-1990s, found no apparent health risks; however, it was later thrown out after the McClatchy News Service reported that a wealth of information on prior benzene exposures wasn't incorporated.

As the Lejeune contamination received attention from lawmakers, the federal health agency began re-evaluating exposures at the base. The agency conducted health

studies on former personnel and found elevated levels of cancers and other illnesses. In May, the agency released its draft of an updated public health assessment, which concluded exposures to benzene, TCE, PCE, vinyl chloride and other chemicals had been at levels high enough to affect the health of personnel.

The study combined the effects of inhalation, skin contact and ingestion, and also analyzed the risks of TCE and PCE together, said Dr. Nachman Brautbar, an internist and nephrologist who specializes in toxicology and has consulted on cases from Camp Lejeune. That's important, he explained, because personnel not only were exposed to the contaminated water during work, but they also drank it, breathed it in and absorbed it through their skin during showers at home.

"So you had essentially triple exposure (at Lejeune). You have skin absorption, inhalation and ingestion," Brautbar said.

The Lejeune report stated that pairing of the TCE and PCE was based on science the agency updated in 2004 — two years after analysis had concluded at the joint reserve base in Willow Grove without looking at combined effects.

Asked about the discrepancies between the two reports, a spokesperson for the Agency for Toxic Substances and Disease Registry wrote that the 2004 document did update the agency's approach for combining TCE, PCE, and 1,1-dichloroethylene exposure.

"PCE and TCE may be additive for neurologic effects, but slightly inhibitory for liver and kidney effects," the response stated. "ATSDR considers an additive approach for these chemicals to be conservative."

In addition, the 2002 joint base health assessment did not take into account any exposures to PFOS and PFOA. Though unregulated, the chemicals have caused alarm in the region after being found in local public and private water wells above safety levels recommended by the EPA.

In 2014, testing by the military of the Horsham Air Guard Station drinking water found concentrations of 11.9 ppb for PFOS and 3.28 ppb for PFOA. Combined, those levels are 216 times higher than the EPA's recommended limit of 0.07 ppb for drinking water.

By contrast, levels in the most contaminated area public well, in Warminster, reached 1.43 ppb combined, more than 10 times lower than the air guard station. Customers in Warminster also likely benefited from water being diluted by other, non-contaminated wells hooked into the system before reaching their taps.

Rob Bilott, an environmental attorney who has been writing to the EPA for years detailing the dangers posed by perfluorinated compound contamination nationwide, said he wasn't aware of any drinking water system in the country that has had PFOS levels higher than the air guard station.

The exposure there could have taken place as far back as the early 1970s, when use of the firefighting foams that contain the chemicals began, and continued until 2014, when all water on the base was deemed unsafe to drink.

The spokesperson for the Agency for Toxic Substances and Disease Registry wrote that it is conducting a new public health assessment to evaluate PFOS and PFOA exposures near the base, which was previously reported by this news organization.

However, that study will evaluate "public health implications," in "offsite public and private drinking water sources," the response stated, making no mention of former on-base personnel.

Decatur and 3M named in contamination lawsuit

Updated:Friday, June 24th 2016, 2:42 pm EDT

By Nick Lough, Reporter

WTVM Channel 9

DECATUR, AL (WAFF) -

An environmental group that declared intent to file a lawsuit over high levels of potentially dangerous chemical compounds found in the water near the Decatur area has filed a federal lawsuit.

Tennessee Riverkeeper submitted the complaint Thursday afternoon. It names 3M Company, BFI Waste Systems of Alabama, the City of Decatur and Decatur Utilities as defendants.

The civil complaint claims 3M had made or used PFOA and PFOS at its facility in Decatur.

The chemicals are potential health hazardous if found at high levels. There's also concern that the chemicals can cause cancers and other health risks. According to the complaint, 3M, and its co-Defendants discharged countless tons of the toxins into the Tennessee River and have done little to clean up the contamination.

BFI Waste Systems of Alabama owns and operates the BFI Morris Farms Landfill located on County Road 418 in Hillsboro, Alabama.

The lawsuit claims the landfill accepted quote:

"Sludge contaminated with PFOA, PFOS and related chemicals from 3M's Decatur facility. As a result, PFOA, PFOS, and related chemicals are present in the Morris Farms Landfill, resulting in groundwater contamination and the generation of contaminated leachate. This leachate is sent to Dry Creek Waste Water Treatment Plant, owned and operated by Defendant Decatur Utilities, which discharges wastewater containing PFOA, PFOS and related chemicals to the Tennessee River."

We've reached out to BFI Waste Systems for a comment. A spokesperson told us they are discussion this internally and hope to get back to us at a later time.

Decatur city attorney Herman Marks, Jr. said the City's practice is to review any lawsuit and respond to it appropriately.

To the best of my knowledge the City of Decatur has not been served," said Marks. "It would be best if we could see the lawsuit first."

The civil complaint states the City of Decatur owns and operates the Morgan County Landfill that spent years accepting the majority of industrial waste from 3M's Decatur facility. The suit then goes on to state that PFOA and PFOS and are now present in the Morgan County Landfill and have resulted in groundwater contamination.

A Decatur Utilities spokesperson said they have also not been served with the suit and won't be speaking publicly about it at this time.

According to the court documents, the utility company owns and operated the Dry Creek Waste Water Treatment Plant which continues to receive wastewater from 3M's Decatur facility.

And the Dry Creek Waste Water Treatment Plant does not remove the hazardous chemicals from the water stream and discharges them into the Tennessee River.

The suit also indicates the Dry Creek Waste Water Treatment Plant also disposes of its sludge that is contaminated with the hazardous chemicals into the Morgan County Landfill. The suit goes on to state that PFOA, PFOS and related chemicals were applied to fields in Lawrence, Morgan and Limestone Counties. The suit alleges chemicals have contaminated the soil, surface water and groundwater at and near those fields.

We've reached out to 3M's attorney and are waiting to hear back.

"After nearly five decades of 3M's pollution of the Tennessee River, where no one has held the defendants accountable, we felt we needed to act to protect this precious resource and all the wildlife and restore justice to the hundreds of thousands of people who rely on her water every day," said Tennessee Riverkeeper Founder and Executive Director David Whiteside.

Tennessee Riverkeeper is asking the court to do several things including to issue an injunction that will require the Defendants to stop "their ongoing disposal of PFOA, PFOS and related chemicals that may present an imminent and substantial endangerment to health or the environment and to clean up the groundwater contamination.

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Water authority responds after being removed from health advisory

By Rachel Keith

Updated Jun 25, 2016

WAAY Channel 31 TV

The West Morgan- East Lawrence Water and Sewer Authority responded Friday to Governor Bentley's announcement that no water systems in the state are under the Environmental Protection Agency's final health advisory.

The governor made the announcement Thursday, crediting a plan where the West Morgan- East Lawrence Water and Sewer Authority is buying 2.8 million gallons of water daily from Decatur Utilities and blending it with its own water.

Governor Bentley said ADEM sampling completed on June 13th shows the levels of both PFOS and PFOA in the blended water are below detectable limits at sites within the WMEL system.

ADEM will test the water every two weeks to confirm these results.

The West Morgan- East Lawrence Water and Sewer Authority released the following statement:

"WMELWSA has recently been mixing its processed water with water provided by another system in order to come up with a temporary solution to the PFC pollution problem. We have been removed from the Alabama Public Health Department health advisory list through this temporary solution.

We are pleased the initial temporary plan is working. Once our charcoal purification system is operational in September of this year, we hope to have a more reliable and locally operated means to provide water to all of our customers.

Ultimately, the PFOS and PFOA problem must be addressed through implementation of a permanent RO system that will take over three years to construct.

In the meantime, WMELWSA will continue to work to make its water meet standards and health advisories established by the State of Alabama and the EPA."

According to the governor, water collected at the WMELWSA water treatment plant prior to blending had PFOA and PFOS levels in the range of 25-37 parts per trillion, which is below the EPA's advisory of 70 parts per trillion.

In May, the Environmental Protection Agency tightened its standards for perfluorooctane sulfonate, known as PFOS, and perfluorooctanoic acid, known commonly as PFOA.

Both are man-made chemicals that are commonly used in products like nonstick cookware, waterproof clothing, and firefighting foam.

Long term exposure to PFOS and PFOA is believed to lead to health problems that might be as serious as cancer.

West Morgan-East Lawrence Water Authority officials advised residents not to drink the water after the EPA's notice it was tightening standards

Government shocks experts by watering down safe drinking water standards | poll

MICHAEL McGOWAN and CARRIE FELLNER

June 24, 2016, 7:30 p.m.

New Castle Hearld (Australia)

RED zone residents are being told it is OK to drink water containing toxic chemicals at levels 78 times higher than what's deemed safe by the United States.

In a decision being interpreted as an attempt to downplay the extent of the Williamtown contamination scandal, the federal government on Friday released new safe drinking water standards for perfluorooctane sulfonate and perfluorooctanoic acid 78 times higher than those set by the United States only last month.

Basing its decision on European data from 2008, the Environmental Health Standing Committee - or EnHealth - has lifted tolerable drinking water standards from the interim level of 0.2 and 0.4 parts per billion for PFOS and PFOA to 0.5 and 5 parts per billion respectively.

The decision has the potential to dramatically reduce the size of the Williamtown

contamination footprint and reduce the cost of the Department of Defence's potential liability in the scandal.

• EDITORIAL: Easing safe PFOS limits a slap in the face

The new data also sets tolerable daily intake levels much higher than US standards, and introduced a new chemical - perfluorohexanesulfonate, or PFHxS - another shorter chain perfluorinated chemical used in fire-fighting foams.

But it's the use of the 2008 European Food Safety Authority's safe levels as a guidance that has left scientists flummoxed.

The Newcastle Herald can reveal that even some of the panel members who were part of that 2008 determination have serious doubts about its relevance.

Philippe Grandjean is an adjunct professor of environmental health at the Harvard School of Public Health, and one of the authors of the report.

He told the Herald the panel "didn't know what we know now" when it made its decision.

"My opinion is the [Australian] government is relying on science from yesterday rather than today," he said.

"If they really wanted to rely on tomorrow's science, the way I see it, we are learning more and more about these compounds and they are much more toxic than we thought yesterday.

"I would think a visionary and a precautionary government would want to push the water limits even further down.

"I believe we will soon have convincing documentation that the compounds are more toxic than we thought."

EnHealth considered other global standards with much lower safe drinking water standards, including the US EPA, which made a landmark decision that lowered the safe drinking water standard to 0.07 parts per billion for PFOA and PFOA combined.

But despite the eight-year difference, a spokesman for NSW Health – who have a representative on the EnHealth panel – said its experts found that both the US and EU considered "similar evidence" but "differed in how they applied this evidence".

"The US EPA relied on mathematical models whereas the EFSA relied on established factors for the variability between animals and humans," the spokesman said.

But questions have been raised about the motivation behind the decision.

"It's extraordinary," Port Stephens state MP Kate Washington said.

"Every decision that is being made by the federal government confirms the community's sense that their interests are being put last - particularly their health.

"Instead, it appears that government departments are making decisions based on limiting their liability as opposed to doing the right thing and protecting people's health."

Dr Mariann Lloyd-Smith, a senior adviser to the independent National Toxics Network, said she was "shocked" by the decision.

"You wouldn't expect it from a university student or even a high school student," she said

"Even if they wanted to not take any notice of the US EPA, would you not look at all of the data that has come out in the last eight years before you grabbed a standard that is eight years old?"

The news comes at the same time Anita Bugges is about to become the first Williamtown resident to hand her keys back to the bank in order to escape from the red zone. Ms Bugges, 60, has owned property since the age of 23. But she is now preparing to default on her mortgage payments to protect the health of her daughter Michaela and four-year-old grandson Tristan, who live with her on her Nelson Bay Road property.

She said she was "gobsmacked' when she heard the decision on the new Australia drinking water guidelines, which left her feeling "thoroughly vindicated."

"We need to get the hell away from here," she said.

"They are absolutely trying to squash every chance of anyone getting compensation.

"They are content to leave thousands of people, stranded on contaminated properties, unable to sell them and dying of cancer.

"I'll go and couch surf with my goods in storage and my dogs in kennels before I stay here any longer."

Mr Bugges was originally prepared to stay in the area in order to take part in the class action and because her family had access to clean town water.

That was until a landmark report US EPA report last month found dust was an important exposure pathway for children, who could also ingest the chemicals through hand-to-mouth contact.

She is now prepared to become "homeless" in order to reduce the chance her grandson may in 20 years develop kidney or testicular cancer - diseases both linked with exposure to the chemicals.

"He's a small boy who lives in puddles," she said. "His muddy little hands are always touching his face.

"How do you ... stay here when every lungful of dust he's breathing in has PFOS in it?"

Ms Bugges said she was desperately trying to find a rental within three hours of Sydney but she would not be looking anywhere locally.

She becomes tearful when she admits she has been unable to find new homes for her 10 horses due to their age, but can't bring herself to shoot them.

"I loathe it [the Hunter] now," she said.

Federal Government promises review into safe levels of chemicals in drinking water

By Liz Farquhar

Posted yesterday at 6:37pm

1233 ABC Newcastle (Australia)

On Friday, enHealth which comprises Federal, State and Territory health departments, released the latest safe drinking water standards for the chemicals PFOS and PFOA.

The chemicals, which were used in firefighting foam, have contaminated land around RAAF bases at Williamtown near Newcastle and Oakey in Queensland.
The new Australian guidelines are 78 times higher than those recently updated in the US by its Environmental Protection Agency.
The issuing of the guidelines has caused an uproar among Williamtown residents.
Residents refuse to accept new guidelines
Cain Gorfine is a spokesman for residents living inside Williamtown's contamination zone and said the decision seemed to be about reducing liability.
"We were just gobsmacked," he said.
"In the government's attempt to water down their liability for this issue across the nation, they've put children and residents and families in the firing line.
"I think, definitely, a part of it is liability.
"It's a total denial of the worldwide body of evidence, it just beggar belief."
Mr Gorfine said the enHealth decision relied on outdated evidence about the chemicals.
"They've used evidence that's nearly 10 years old.



"It's really concerning that once again State and Federal authorities are acting in isolation.
"It's just a continuation of the un-coordinated and chaotic approach that's been typical of this Government's response to date.
"Labor has said all along that we do need a nationally consistent approach to this.
"We're grappling with this here, but there are people all over the country that are grappling with it.
"That's why Labor has said that we are going to establish an inter-governmental taskforce that will be independent, to coordinate all of the government agencies, not this piece-meal affair we've been witnessing."
Liberal candidate for Paterson, Karen Howard said the Coalition's response on the contamination issue will be faster than Labor's.
"The independent review of enHealth guidelines within 30 days under a re-elected Turnbull Government, which is three times faster than under a re-elected Labor Government is absolutely the right thing to do," she said.
"The issue of PFC contamination is one of the most significant concerns for this community and I am very serious about seeing this issue through."

But Ms Howard acknowledged the release of the new guidelines on Friday was not ideal.

"It was simply not good enough for NSW Health to release a statement on their website and then fail to properly explain and justify these values and expect the community to accept them."